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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,657	05/26/2005	Toshio Kazama	AB-1387 US	9142
32605 7590 04/11/2007 MACPHERSON KWOK CHEN & HEID LLP 2033 GATEWAY PLACE SUITE 400 SAN JOSE, CA 95110			EXAMINER NGUYEN, VINH P	
			ART UNIT	PAPER NUMBER
			2829	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/11/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/510,657

Applicant(s)

KAZAMA, TOSHIO

Examiner

VINH P. NGUYEN

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11, 13-15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-14, 17 and 19 is/are rejected.
- 7) ☒ Claim(s) 8, 15 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/13/05
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

Art Unit: 2829

1. Claims 1-9 and 13 are objected to because of the following informalities:

In claim 1, lines 11-12, should "contact probe" be "contact member".

In claim 13, it is unclear which claim it is dependent from. This claim can not depend from a cancelled claim 12.

The dependent claims not specifically address share the same indefiniteness as they depend from rejected base claims.

Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7,10-11,13-14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Reynolds et al (Pat # 5,395,249).

As to claims 1 and 10, Reynolds et al. disclose an apparatus as shown in figure 6 having a holder member (54) defining a plurality of holder holes (58) passed across a thickness of the holder member (54), an electroconductive coil spring (62) received in each of the holder holes (58), each electroconductive spring having a natural length in an uncompressed state, an elongated contact member/probe ((60,56) provided on either axial end of the coil spring (62), an engagement portion (a shoulder of the holder member making contact with the upper plunger "60") provided in each of the holder holes such that each electroconductive coil spring extends

by its natural length under a rest condition of the contact member (coil spring is in uncompressed condition). It is noted that the length of the probe (60,56) when disposed in the holder hole is substantially the same as the length of the probe when no load is applied to the coil spring (62) such that each electroconductive coil spring extends its natural length if no load is applied to the coil as recited in claim 10.

As to claim 2, the contact members (60,56) comprises needle members (60,56).

As to claim 3, Reynolds et al also teach that it would have been well known to provide a pair of engagement portions in either axial end of each probe holder to prevent both of the needle members (60,56) from coming off from the holder hole (58) as shown in figure 5.

As to claim 4, the engagement portion (a shoulder of the holder member making contact with the upper plunger "60") is provided in only one of two axial ends of each holder hole to prevent the corresponding needle member (60) from coming off from the holder hole.

As to claim 5, the contact member (60,56) on one of said axial ends of each coil spring (62) comprises a needle member (60), and the contact member (56) on the other axial end of said coil spring (62) consists of a coil end of said coil spring (62), said engagement portion being provided in each holder hole only to prevent said needle member (60) from coming off.

As to claim 6, the engagement portion (a shoulder of the holder member making contact with the upper plunger "60") is provided in each of said holder holes (58) for preventing only one of said contact members (60) for each of said coil springs (62) from coming off from said

holder hole (58), and the other contact member (56) is installed substantially flush with the outer surface of the holder member.

As to claim 7, the engagement portion (a shoulder of the holder member making contact with the upper plunger “60”) comprises a shoulder defined in each holder hole.

As to claim 11, the probe (60,56) a flange portion (a bottom portion of a first conductive member (60) having a first diameter adjacent the first electroconductive member (60), and a second electroconductive contact member (56), wherein second contact member (56) comprises a needle having a tip portion disposed on the second axial end.

As to claim 13, the first electroconductive member (60) has a second diameter, an engagement portion (an upper portion of the hole “58”) with a third diameter that is less than the first diameter of the flange portion (a bottom portion of a first conductive member (60) having a first diameter adjacent the first electroconductive member (60)) and greater than the second diameter of the member (60).

As to claim 14, the engagement portion (a shoulder of the holder member making contact with the upper plunger “60”) comprises a shoulder portion that engages the flange portion (a bottom portion of a first conductive member (60)).

As to claim 19, the device of Reynolds et al would include a plurality of electroconductive contact probes (60,56) and a plurality of holder members (portions of the connector body “54” containing individual contact member/probes (60,56)).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al (Pat # 5,395,249) in view of Bross et al (Pat # 5,225,777).

As to claims 9 and 17, Reynolds et al do not disclose a holder member comprises a plurality of layered support members.

However, Bross et al teach that it would have been well known for one of ordinary skill in the art to have a probe holder (20) comprises a plurality of layered support members (23,26,30,34). It would have been obvious for one of ordinary skill in the art to provide a probe holder with a plurality of layered support member as taught by Bross et al to the device of Reynolds et al so that the warping or deflecting of the probe holder is minimized.

6. Claims 8,15 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 8 is allowable since the prior art does not disclose "holder member includes a plurality of layered support member and the shoulder is defined between adjoining two of said

support members having holder holes which are coaxial to each other but having different diameter.

Claim 15 is allowable since the art of record does not disclose the electroconductive coil spring further comprises a closely wound portion and a coarsely wound portion in combination with other elements in claim 10.

As to claim 18 is allowable since the art of record does not disclose a shoulder portion defined by a first hole of a first diameter in a first adjoining layer of said plurality of layer support members and a second hole of a second diameter in a second adjoining layer of said plurality of layer support members.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Howell et al (Pat # 5,825,616) disclose a media module locking and ejecting mechanism includes a button spring as a coil spring.

Affolter et al (Pat # 6,190,181) disclose connection base.

Frederickson et al (Pat # 5,955,888) disclose an apparatus and method for testing ball grid array packaged integrated circuits.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is 571-272-1964. The examiner can normally be reached on 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HA T. NGUYEN can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



VINH P NGUYEN  
Primary Examiner  
Art Unit 2829

04/04/07